不确定性与复杂性：
拉·维莱特公园到当斯维尔公园
UNCERTAINTY AND COMPLEXITY: FROM PARK DE LA VILLETTE TO DOWNSVIEW PARK

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摘要

本文通过解读库哈斯及OMA设计事务所的两个竞赛方案：法国拉·维莱特公园与加拿大当斯维尔公园，剖析当代城市公共空间对城市公园的设计关联。针对雷姆·库哈斯提出的“拥挤文化”及“剧异城市”概念，本文继而剖析了两个城市公园方案对当代城市发展做出的不确定性及复杂性的空间应对策略和方式，并引申探讨当代城市公园如何与城市公共空间进行对接与共融。

关键词

不确定性与复杂性；城市公园与城市公共空间；雷姆·库哈斯；拉·维莱特公园；当斯维尔公园

ABSTRACT

This review of two Rem Koolhaas and OMA competition projects, Park de la Villette in France and Downsview Park in Canada, compares the relationships between public space and public park design in contemporary cities. Considering the “Culture of Congestion” and “City of Exacerbated Difference” as proposed by Koolhaas, this paper analyzes the uncertainty and complexity of design approaches that respond to contemporary urban development. It then explores how contemporary urban parks should be designed for integrated with and into public spaces.

KEY WORDS

Uncertainty and Complexity; Urban Park and Urban Public Space; Rem Koolhaas; Park de la Villette; Downsview Park

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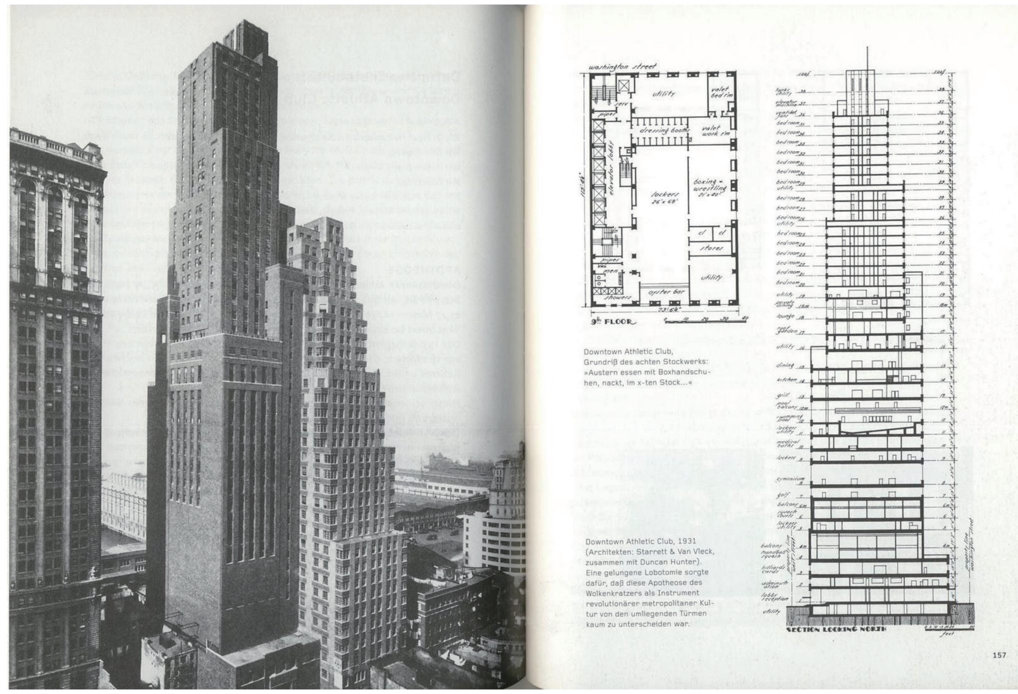

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1. 下城体育俱乐部

1. Downtown Athletic Club

1 引言

当现代城市公园跳脱出如画景致的追求，在帮助城市社区确定自身及其与自然界关系之后，它的存在意义不应仅局限在对风景的描摹刻画，而是容纳城市增长，并消隐边界，建立复合型城市绿色综合体。雷姆·库哈斯一直是以“激进天才”的建筑师形象活跃于当今建筑界。其“诡异多变”的设计作品经常展现出对正在发生以及未来发生事物的原理性思考，但又无法用已知的模式进行论证，以此奠定了库哈斯先锋性、实验性的设计观。本文分别从巴黎的拉·维莱特公园与多伦多的当斯维尔公园入手，分析当代城市公园该如何与其城市空间高效衔接，融为一体。

2 城市公园设计的本质之变：边界消隐

当代的城市公园运行域面早已跨越所谓规划边界的藩篱，正以前所未有的速度与城市最为活力的部分对接。在城市中，由于城市公园的自然基质决定了它与城市中的任何一类人工空间皆不同，它仍保留着奥姆斯特德时期的功能本质。当代亚洲城市，尤以中国为例，高密度、强集中是其直观表象，在城市运行系统上其同时有着超高效率的要求。这些正在发生的事实迫切需要城市公园与城市本身以无缝对接的方式整合，以边界消隐的方式满足城市的运转效率，并转化为城市经济复合体的一部分。

3 水平性拥挤与巴黎拉·维莱特公园

3.1 拥挤文化

库哈斯及OMA设计事务所对于拥挤、拥堵的理解应该源于他们生活的国度——荷兰，这个国家24%的领土低于海平面，仅有1/3的领土高于海平面1m[1]。有限的国土资源使得荷兰成为欧洲人口密度最高的国家。在面对“密度”、“拥挤”与“整合”这样的空间概念时，库哈斯所表现出的敏锐视角带有一种默认为此的态度。

早在1978年，库哈斯便在《癫狂的纽约》一书中，用“拥挤”概括了纽约曼哈顿的大都市本质。而此种拥挤带来的城市空间和生活方式的后果是：人类也许可以极大程度地脱离基于地面的城市公共空间生活，每个个体在一个高度整合的、具有混合功能的建筑体内便可以完成作为生理生活的所有活动。以库哈斯的下城体育俱乐部（图1）为例，在这幢建筑里，人们可以完成住宿、餐饮、娱乐、体育、健身等所有活动，同时这些独立的服务空间可以形成多种组合，因此就有了建筑的空间不确定性，而这种不确定性恰是建筑空间的活力所在。这引发了一种思考：当建筑的外部形态与内部功能空间发生碰撞，建筑外观的功能可识别性开始与内部空间的多元需求产生形态剥离，那么建筑的表皮设计是否还需要受制于建筑内部功能变化？

如果将这种关于建筑设计手法的探讨思路延展到城市空间问题上，那么我们还能否用单一的功能区划对城市中的地块进行简单层次的认知？库哈斯用“拥挤”的概念来描述当代城市的复杂状态，在此视角下对亚

洲迅猛城镇化现象进行解读，其跳脱出形态本身，针对形成此类城市状态的事件关系进行梳理。每一个以非建筑事件（包括世界经济、人口迁徙、环境恶化等）为主要推动力的大都会是一座无法预判的未知城市。当代的亚洲城市，从北京、上海、香港，到东京、曼谷，无一不处于高度集中的拥挤状态，而此种状态又处于高速运转的动态过程之中。嘈杂、混乱、无序、无方向感基本成为了当下高密度大型城市公共空间的代名词。多元、矛盾和冲突是资本社会经济为主导城市的基本状态，拥挤则为其状态的物化表象。库哈斯积极地将拥挤作为一种大都市生活方式和生活文化来研究，并以直面问题的乐观精神认定该类拥挤是都市文化的一部分。伴随这种影响城市活力的拥挤状态而来的，是对城市事件与未来发展趋势的复杂性和不可预测性。因此所有的设计应该指向未来，并在不确定与复杂中寻求一种新的设计可能。

3.2 巴黎拉·维莱特公园

位于法国巴黎的拉·维莱特公园是库哈斯/OMA设计事务所的第一项大规模城市公园设计实践。拉·维莱特公园设计竞赛于1982年发起，这座献给21世纪的城市公园早在建设之前，就在其设计任务书中明确提出：“拉·维莱特公园是一座献给21世纪的城市公园”；“传统的公园已无法满足城市和文化诉求，因此拉·维莱特公园不能仅仅关注如何对景观进行刻画，也不能被设计为城市中的一座郊野公园或花园，而应该被设计为一个能够提供文化服务的城市场所”；“拉·维莱特公园的目标是成为一件划时代的设计作品，并作为巴黎未来经济和文化发展的核心区所在。”[2]

在今天看来，在所有入围参赛作品中，只有伯纳德·屈米与库哈斯/OMA设计事务所的方案才真正契合了竞赛的宗旨——面向21世纪的新型公园，融合城市事件与功能。后者的方案以“赋予城市边缘活力”作为设计主旨，并以此对城市未知性进行一次无边界式的场地设计探索。在此过程中，库哈斯对“公园”的概念进行了城市化拆解，他认为“21世纪的新型公园承载着都市持续的变化和调整，因此设计在此过程中更应展现出对公园良性运行策略的思考，通过综合建筑学①的专业特性来应对其发生事件的不确定性”。[3]

拉·维莱特公园的原始场地条件非常复杂，拥有屠宰场、大厅和音乐厅、国立音乐学院、剧院等，加之运河、公交和地铁线、铁路，以及东、北侧的环城高速路。整个巴黎城市的运行节奏都在此地展现出来，因此远离尘嚣的、如画风景式的城市公园根本无法容纳场地的复杂性与不确定性；唯有把城市的运行节奏引入公园中，并与其契合，才能使城市公共空间与公园的自然空间协同提升城市公共空间品质。在拉·维莱特公园方案中，库哈斯/OMA设计事务所试图通过“水平拥挤”的城市策略为这个位于巴黎市郊平民区内的新生公园重新注入活力（图2）。

库哈斯“水平拥挤”的空间策略，其核心意义在于：改变城市公园的基本属性，从城市的避难所、乌托邦转变为城市引擎的发生器，如同磁石般地吸聚着大量的城市活动，同时激活外部的郊区和内部衰落的城市区域。具体做法体现在公园空间层次的布置上，方案通过4个层次的空间叠加来构成城市公园空间：水平条带、点格（或“五彩纸屑”）、路径与环线和最终层（图3）。

场地中以东西向的“水平条带”作为基底格局，每条条带宽度为50m，同时在部分场地以5m、10m、20m或45m等规格安插主题花园、游乐场等项目。这样均布手法避免了活动密度的不均，同时不同的水平条带两条边界上下相接，使得活动内容的交互性最大化。这与生态学中的“边缘效应”极其类似，目的是获得“边界”之间的最大化渗透。

“点格”是叠加在水平条带上的公园设施（凉亭、零售摊点、餐饮区、野餐区等），这些点格的大小和出现频率是经过严格计算生成的。这些功能设施与水平条带所形成的不同场域，与建筑体结合后会激发不同类型的活动内容，而这种活动内容的随机性却慢慢赋予不同设施空间以固定功能，并逐渐趋于稳定。

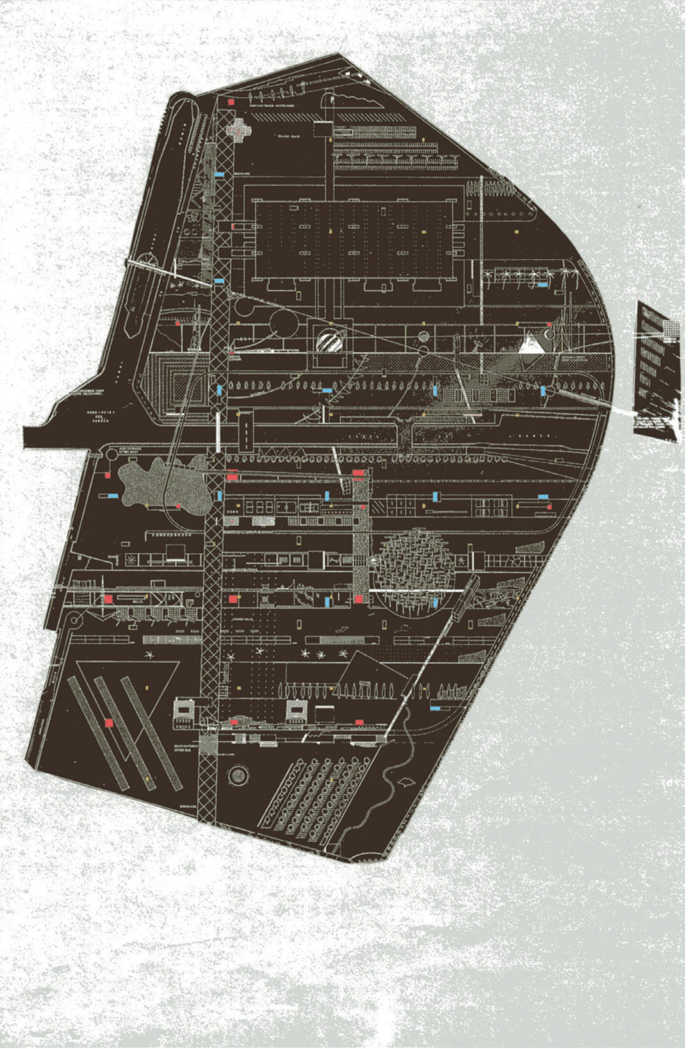
“路径与环线”是连接整个公园主要建筑的交通系统。主路的宽度设置为25m，连接了最主要的两个建筑（南侧的音乐厅/大厅，与北侧的博物馆），这样的尺度更便于高流量的通行，有助于与城市功能相衔接。

“最终层”是对场地中大体量建筑物的背景化整合。场地内部有大量已有和新建的建筑物，但由于尺度问题，它们与整个场地的肌理（水平条带）在衔接时经常出现错位。最终层在水平肌理突兀的地方结合一系列建筑功能变化，来确立公园的边界（而非周界）[4]。公园的边界不一定要与公园的规划红线完全吻合，这种错位可以界定出城市与公园的缓冲地，例如，可以形成入口广场。

4 不确定的复杂系统构建与多伦多当斯维尔公园

4.1 不确定性的复杂系统构建

一直以来，库哈斯的设计研究都是面向未来的，因此不确定性基本成为其研究对象的显著特征。但此种不确定性却是以系统的方式构建在研究对象中，因此这又产生了在《大跃进》中所提出的“异剧城市”的研



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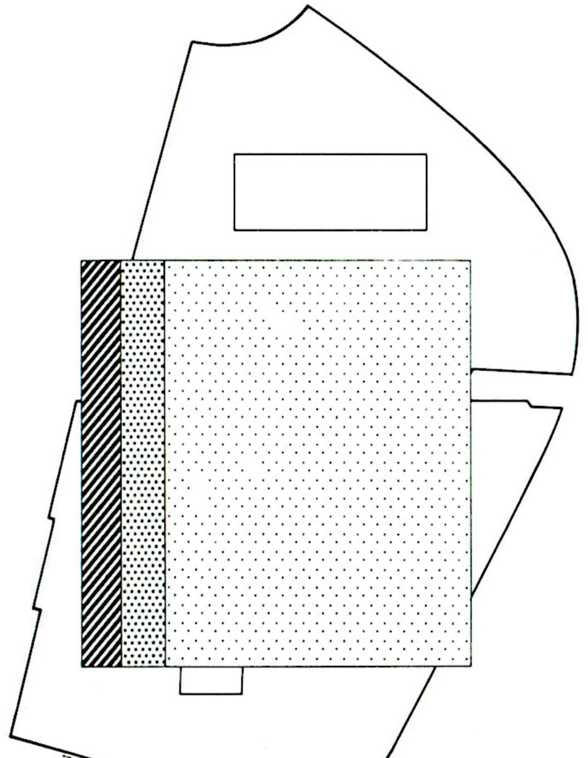
① 当时没有形成明确的风景园林专业称谓，这里的建筑学（architectural specificity）应该包含风景园林（landscape architecture）的含义。

2. 在拉·维莱特公园方案中，库哈斯/OMA设计事务所运用了“水平拥挤”的城市策略。
3. 方案通过4个层次的空间叠加来构成城市公园空间：水平条带、点格（或“五彩纸屑”）、路径与环线和最终层。

2. Koolhaas / OMA proposal for Park de la Villete employed a strategy of “Horizontal Congestion”.
3. Four spatial arrangements were proposed and layered on each other to compose the park. These included Strips, a Point Grid (also referred to as Confetti), Access and Circulation, and Final Layer.



最初的假设

如图所示，拉·维莱特公园的场地太小，而需要承载的项目又太多，所以无法创造出一个会让人拥有“公园感”的公园。因此，方案不能被简单地视作一个设计，而是一项通过在场地上设计一系列活动使所获效益最大化的战略设想。故而方案的重点在于：如何在大都市背景下使多种活动实现最具活力的协调共存，并通过它们的相互作用激发新的活动；或者说，如何基于“水平拥挤”策略和公园的规模，设计一个社会聚合器。

Initial Hypothesis

As the diagram reveals, the site of la Villette is too small, and the program too large, to create a park in the recognizable sense of the word. Instead of designing a conventional park, the scheme intends to create a dense forest of social instruments across the site. Therefore, this scheme is not simply a design but mostly a tactical proposal to derive maximum benefit from the implantation on the site of a number of activities. The essence of the proposal thus can be understood as how to orchestrate on a metropolitan field the most dynamic coexistence of activities x, y, and z and to generate through their mutual interference a chain reaction of new, unprecedented events; or, how to design a social condenser, based on horizontal congestion, and on the size of a park.

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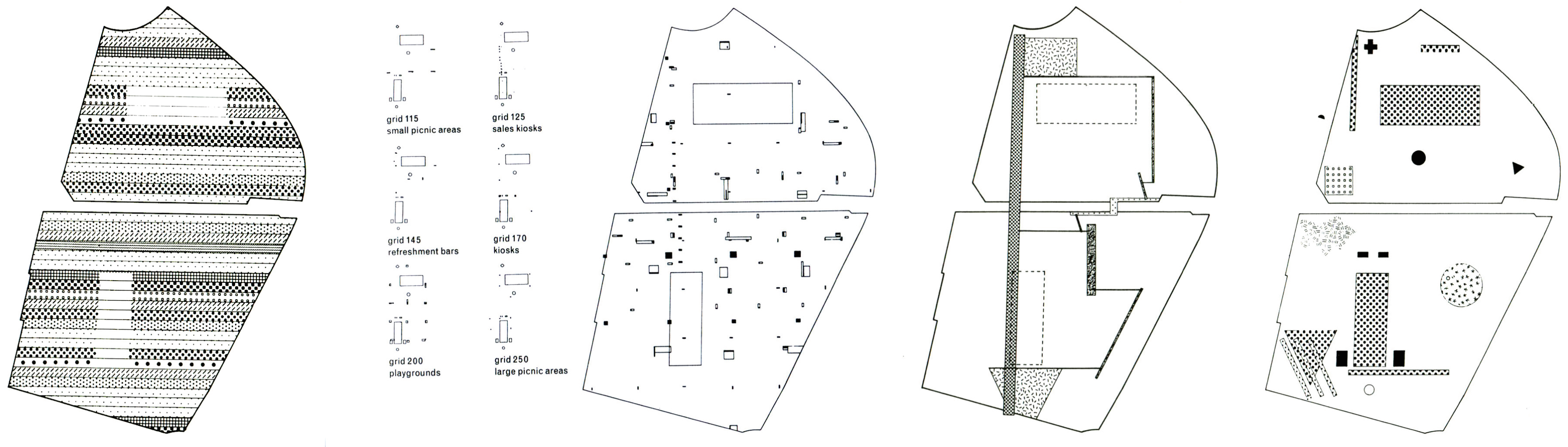

水平条带 Strips　点格 Point Grid　路径与环线 Access and Circulation　最终层 Final Layer

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究模型，主要是指在中国政策不确定性的背景下中国建筑发展与社会创造的可能性。这种政策导向与社会体系自身系统性运行成为一种力度的耦合，共同作用于当下的城市发展过程，从而形成一种鲜明的不确定状态。“传统城市要求的是一种平衡、和谐，与同质性。而剧异城市的基础则建立于各个部分之间的最大的差异性——不论是互补或是相互竞争的……剧异城市所靠的并不是按部就班的创造理想，而是在侥幸、意外及缺陷中做投机式的开发或利用。虽然剧异城市的模型看来似乎粗暴，而且必须依靠各部分的原始活力这之间的悖论实际上却说明它是精巧而细致的。任何部位的细微改变都需要以整体的调节来重新还原各极端之间的均衡。”[5]

以系统论的观点来看，此种分析方法是对复杂性与不确定性最好的诠释。库哈斯在对“异剧城市”的研究是以20世纪中国珠江三角洲为原型进行的亚洲城市发展的状态描述，并以此来诠释政治驱动力下的当代建筑所具有的新的可能性，力求重构该体系下的建筑学。能够同时应对未来的不确定性和系统发展的复杂性，并满足国家层面的政治诉求，具有鲜活时代驱动力的当斯维尔公园正是验证此种设计思路的最佳场地。

4.2 多伦多当斯维尔公园

多伦多当斯维尔公园的竞赛模式与拉·维莱特公园异曲同工，只是时间上相隔了16年。公园的国际设计竞赛在1999—2000年举行，但早在1995年，加拿大政府便成立了当斯维尔公园研究中心，对该场地开展规划前的调查、土地政策与运营管理等工作。同当年的拉·维莱特公园一样，当斯维尔公园的竞赛结果也具有极大的争议性。OMA设计事务所与加拿大工业设计师布鲁斯·莫尔合作完成的“树城”（Tree City）方案一举获胜（图4）。

当斯维尔公园总占地面积约130hm²，场地原为加拿大当斯维尔空军基地。随着多伦多城市规模的不断扩张，原处于郊区的当斯维尔地区逐渐发展为城市中心（图5），而急剧的城市扩张对土地的极大需求和未来发展的不确定性，使得场地的整体运行，特别是与多伦多城市体系的衔接成为了公园建设的重要议题之一。因此在公园竞赛任务书中明确提出“公园设计应该关注自然系统再生、重建过程中其土地使用功能的迫切需求，特别是日益强化的社会性功能与娱乐性功能，以及不可避免的城市化过程”，“设计方案应该体现场地随时间转变的过程，并让场地在转变过程中保持开放”，“既要满足大量的社交和休闲使用的需要，又要满足改善与整合因城市扩张而退化的自然系统的需要；既要在设计中体现场地和社区的历史文脉，又要在设计中为将来新的社区、活动和生态系统提供一个框架。”[6]由此可见，此次设计竞赛的核心是对该场地过去、现在、未来持续发展的空间运行策略的考量，特别是在多伦多城市体系下，该公园未来发展的策略应思索包括生态、人文、经济、城市效能、价值定位等多方面在内的综合因素，以应对场地的复杂性与不确定性。

库哈斯本人对城市异质性格外敏感，并积聚了大量实例研究。“树城”这一公园设计方案基于三个空间层次的界定：首先是多伦多市的北美城市竞争力，其次是对于多伦多的自然资源基底的保护，最后是场地本身与多伦多城市效能的融合。树城方案以多伦多的自然地域特征为出发点：多伦多曾经有多达90%的森林覆盖率，面对全球城市竞争力的提升和对自然公共空间的塑造两大问题，方案认为创建低密度的城市公共生活是多伦多最为重要的环境决策。以植物作为城镇化进程的催化剂要比建筑更具潜力，且投入更低。树城方案中，库哈斯以多伦多城市空间发展的不确定性为设计导向，整体方案并非以具象的形态出现，而是以图解模式进行概念陈述。其核心概念是以景观群作为单元模型进行城市公园的结构创建，“通过自然植被的延伸在城市中创造密度，让高强度种植为多伦多发展增加财富，最终使公园在城市尺度上成为一个释放自然能量的场所，并与多伦多市区的高密度形成一种新的平衡[6]。”

库哈斯的树城方案一如既往地好似拼贴画一样的简单，没有具体到形态；但是在经营者看来，该方案解决了形态之外的运行问题：通过场地的植被恢复与培养，一方面建立基本公园场地的活动空间，另一方面预留大量弹性用地，这样不仅可以令场地具有增值空间，也极大地契合了未来多伦多城镇化进程发展的不可预测性。就此可见，OMA设计事务所/库哈斯叙事性的场地营销式规划对比其他竞争对手更具说服力，在设计的已知条件并不充分的条件下，尤其是在解决不确定性问题时，设计模型式的图解表达更能抓住问题的核心（图6）。树城方案曾被如此评价道：“它不是构筑一个具体的空间，而是一个系统，它是一个开放性的空间：灵活、渐变、可调整、并适用于其他类似的场所、时间与空间。”[7]

5 结语

拉·维莱特公园和当斯维尔公园的设计方案都旨在应对城市变革的复杂性和不确定性，但由于方案的未来性——甚或表达的概念性——却总是引起争议。在本文中，我们探讨的是库哈斯/OMA设计事务所公园设计方案的学术价值，如果针对方案进行实操层面的研判，其必将是瑕疵与创新并存的。几十年后的今天，我们反思当下中国景观设计师的困境——城镇化所带来了包括城市资源体系的瓦解与重组在内的剧烈变革——时会更加深刻地意识到，库哈斯的“拥挤文化”以及“不确定性”都是对当代社会以后城市性状的精准描述。

他提出的“拥挤文化”是一种直面现实的态度，他在否定建筑乌托邦的同时，以一种拥抱现实的“乌托邦”精神阐释了当时的城市性状。拉·维莱特公园正是基于这一理念的城市实践，由于城市公园与建筑在尺度上的巨大差别，城市公园对于城市资源流的反应更加贴近城市脉络本身。然而，从认知到实践的转化是学者型设计师最为艰巨的部分，这在库哈斯的拉·维莱特公园方案中体现得尤为明显：水平条带的布局可以在理论上说明城市公园未来性的存在指向，但是在具体的实践中难免有空间形态的失控。尽管如此，他的设计仍显示出强烈的思考过程性，针对场地也有着丰满的时空观（how it works），其能够辨析出未来发展方向的主要推动力（政治、经济、社会、使用者等因素），并以一种图解的方式进行演示，因此他的方案经常是去形态化的，但却有着异乎寻常的生命力。

对于“不确定性”，城市公园是城市资源体系的一部分，这就不可避免地要求城市公园要承担城市资源的分配功能。城市公园的社会性职能开始慢慢显现，其建设意义也要过渡到城市资源分配领域的速度与节奏中去。此时，设计师需要对城市公园的城市性功能进行预判，同时也要清晰理解场地自然资源的运行机制，并将之回归到诗意的空间组织中。反观库哈斯的树城方案，在从建筑空间尺度到城市公园空间尺度的转化上还是显示出了建筑学科的专业限制。对于130hm²尺度的城市公园来说，其在自然空间体系下会不可避免地承担该体系下的自然栖息地境演替与物质能量传输的生态意义。在此语境下，树城方案则显得过于概念化，对于具体的场地植入问题，该方案的判断也存在着巨大的出入。他在深刻推敲城市未来发展的主要作用力之时，一以贯之地采用了图解式的语言进行描述，并认为分析与创造之间不存在界限。他这种把分析本身列为创作结果的思想使得库哈斯的方案结果备受争议。这种场地结构性的方案在空间组织与形态演绎上缺少直接的引导，而更像是一种分析思维的示意图。但是，不论建筑领域还是景观领域，库哈斯都以其独特的创作方式，较为精准地表达出时代为城市带来的变革，同时也指明了设计的方向，从这个层面来看，库哈斯仍旧是思想领域的先者，同时启迪着这条路上的他人。LAF

1 Introduction

Contemporary urban parks should not be limited to only beautiful landscapes, their value should also come from how they can facilitate urban growth and help communities identify with the natural environment. Rem Koolhaas' designs have attempted this by considering current site conditions while anticipating unknown futures. This pioneering and experimental design philosophy does not provide any one design foundation. Rather, proposals for Park de la Villette in Paris and Downsview Park in Toronto are examples of how contemporary urban parks could be efficiently and aesthetically integrated with and into urban growth.

2 From Urban Parks to Urban Fields

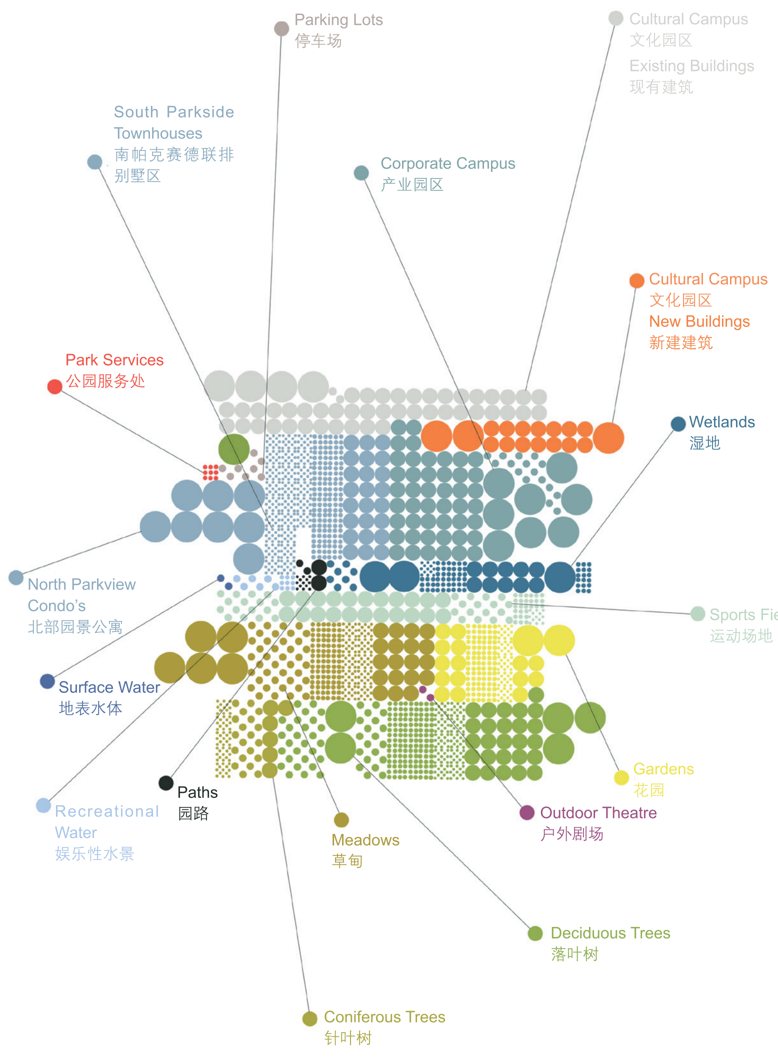
Contemporary urban parks have stepped over their planning boundaries, becoming linked and integrated with vibrant urban areas at unprecedented rates. The natural matrix of urban parks allows them to provide refuges from the Olmsted period that makes them differentiated from other constructed urban spaces. In contemporary Asian cities, particularly Chinese cities, high density and high centralization are common. This requires the exploration and development of new urban park forms that can be better integrated into complex urban form.

3 Horizontal Congestion and Park de la Villette

3.1 Culture of Congestion

In the Netherlands, where OMA and Rem Koolhaas are based, nearly a quarter of the country's land mass is located below sea level[1]. Limited land resource is one reason the Netherlands has the highest population density in Europe, and probably helps explain Koolhaas' understanding of congestion and crowdedness. Responding to spatial concepts like density, congestion, and integration, Koolhaas' acute insight can be understood as an acquiescence of his cultural background.

With his 1978 book, Delirious New York, Koolhaas abstracted Manhattan into a landscape of congestion, arguing that this congestion produced a lifestyle that was not lived in the public space of the ground, but in highly integrated, mixed-use buildings. The Downtown Athletic Club (Fig. 1), for example, would provide residential services as well as space for catering, recreation, sports, fitness, and community. These independent service spaces could be flexibly and adaptively recombined or rearranged to allow for unplanned and uncertain spatial form to emerge. The introduction of congestion produces uncertainty resulted in a new form of architecture, where the external form may be in conflict with its internal space. The predictable identity of the architectural facade would be morphologically divorced from the internal programming, without necessarily sacrificing either the exterior form or internal function.



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4. OMA设计事务所与加拿大工业设计师布鲁斯•莫尔合作完成的"树城"方案。

4. Tree City, by OMA and Canadian industrial designer Bruce Mau.

Extending this perspective to urban space, it becomes clear that urban landscapes cannot be understood as mono-functional spaces. The metaphor of congestion to describe the complexity of contemporary cities considers the rapid urbanization of Asian cities as a relational and morphological, rather than chronological or linear, process. Urban growth, from non-architectural events, such as economic, population migration, and environmental degradation, are spatial, yet unpredictable in a formal sense. The high density and high centralization common in Asian metropolises, from Beijing, Shanghai, and Hong Kong, to Tokyo or Bangkok, have produced dynamic, high speed operational changes. The public spaces of these cities are noisy, chaotic, disordered, and disoriented. Global cities produced through capitalist processes are full of the diversity, contradiction, and conflicts that result in a sense of congestion. Koolhaas optimistically considers congestion to be an unavoidable byproduct of metropolitan lifestyle and culture, that complexity produces urban vitality. Understanding complexity can help predict future urban development and find the potential in uncertainty.

3.2 Park de la Villette

The Park de la Villette in Paris was OMA/Rem Koolhaas' first large-scale urban park proposal. The1982 competition brief expressed, at the time, innovative goals and expectations, that la Villette was "to be an urban park for the 21st Century." The organizers of the completion "recognized that the traditional parks in Paris were failing to fulfill the urban and cultural role they had once played," and that la Villette was not "to be a simple landscape replica; rather than being asked to recreate countryside or a garden in the city, the entrants were called upon to devise a new form of functioning cultural space."The objectives of the project were to both "mark the vision of an era and to act upon the future economic and cultural development of a key area in Paris."[2]

Among the competition finalists, Bernard Tschumi and the OMA/Koolhaas' proposals are most remembered. The OMA proposal sought to create an urban part for the 21st century through "urban edge vitality," a free-boundary site approach that took into account urban uncertainty. Koolhaas reexamined the very concept of the urban park by addressing how the programs and activities of urban spaces change — compressing and expanding — over the park's lifetime. In response, the design of the park should adjust and change with the urban surroundings, resulting in a proposal that combines architectural① specificity with programmatic indeterminacy.[3]

The existing site condition was highly complex: in addition to a former slaughter house, the Grande Halle and the Concert Hall, the National Music Conservatory of France, and several additional theatres, the site also housed an elaborate infrastructural system of canals, bus, subway, and rail routes on the eastern and northern sides. In these ways the site was a microcosm for the whole of Paris. The picturesque urban parks that had defined the Paris landscape could no longer accommodate and adapt to site complexity and uncertainty. Proposals for the new Park de la Villete would therefore need to be integrated into the city's operational systems, becoming an extension of the urban system as a whole. In response, the Koolhaas / OMA proposal for la Villete employed a strategy of "Horizontal Congestion" (Fig. 2).

The "Horizontal Congestion" strategy was intended to change basic perceptions of the urban park, seen as a place of refuge or utopia into a place of attraction that would generate various urban activities. Four spatial arrangements were proposed and layered

① At that time, the professional name of landscape architecture was not recognized. "Architectural specificity" here is supposed to contain the scope of landscape architecture.

on each other to compose the park. These included Strips, a Point Grid (also referred to as Confetti), Access and Circulation, and Installations (Fig. 3).

The first layer — Strips — is a set of parallel strips, each50-meters wide and arranged from east to west. These strips each contained a range of gardens and amusements set at various standard distances of five meters, ten meters, twenty meters, or forty-five meters. This evenly distributing design avoided clustering users while positioning the boundaries of every adjacent strip in such a way as to maximize mixing and interaction of activities, creating an effect similar to a healthy ecological edge.

The second layer, the Point Grid, refers to the amenities and facilities, including pavilions, retail stalls, dining areas, and picnic areas, superimposed onto the initial layer of horizontal strips. The distribution of the Point Grid was developed through mathematical calculations of size and frequency of occurrence. The spaces formed through the relationship of the points and strips would create new types of places for public use, yet their specific programming would remain undefined to allow for gradual and phases adaptation.

Next, paths along the strips and main routes were added to create the third layer, "Access and Circulation." The primary road, which is supposed as 25-meters in width, connects the Concert and Grand Hall in the south, and the Museum on the north. This high traffic road links the two key building on the site, and allows for high-traffic flows while facilitating integration with the urban fabric.

The final layer is a comprehensive composition of the major elements — added and found — which are too unique or too large to be located within the mathematics of the central system. Along with a series of architectural interventions, this layer helps define the boundaries of the park without necessarily defining the perimeter.[4] The assumption that the park's boundary does not need to coincided with its perimeter creates a threshold, such as an entrance plaza, between the park and urban fabric.

4 Designing Uncertain System at Downsview Park in Toronto

4.1 Uncertain Complex System

Koolhaas' designs are always future-oriented, and a level of interdependency is systematically incorporated into most of his projects. For example, the "City of Exacerbated Difference," proposed in the Great Leap Forward, focuses on different possibilities for Chinese architectural development and social creation within the future political uncertainty of China. Policy guidance, coupled with a spontaneous social system, would help to influence the current urban development process and future state of uncertainty. To quote at length, in Great Leap Forward, Koolhaas writes that "The traditional city strives for a condition of balance, harmony, and a degree of homogeneity. The City of Exacerbated Difference, on the contrary, is based on the greatest possible difference between its parts — complementary or competitive. In a climate of permanent strategic panic, what counts in the City of Exacerbated Difference is not the methodical creation of the ideal, but the opportunistic exploitation of flukes, accidents, and imperfections. Although the model of the City of Exacerbated Difference appears brutal — to depend on the robustness and primitiveness of its parts — the paradox is that it is, in fact, delicate and sensitive. The slightest modification of any detail requires the readjustment of the whole to reassert the equilibrium of complementary extremes. " [5]

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5. 随着多伦多城市规模的不断扩张，原处于郊区的当斯维尔地区逐渐发展为城市中心。

5. Initially located on the edge of Toronto, as the city grew, Downsview found itself at the center of new urban development.

In this view, complexity and uncertainty are taken as opportunities for architectural practice to be redefined within the political framework of modern China. Koolhaas uses the Pearl River Delta as a prototype to describe Asian urban development through the lens of "Exacerbated Difference." Likewise, Downsview Park in Toronto seeks to respond to future uncertainty and complexity while meeting current political demands. In short, the OMA/Koolhaas proposal for Downsview Park positions design as an experimental field for both political and architectural engagement.

4.2 Downsview Park in Toronto

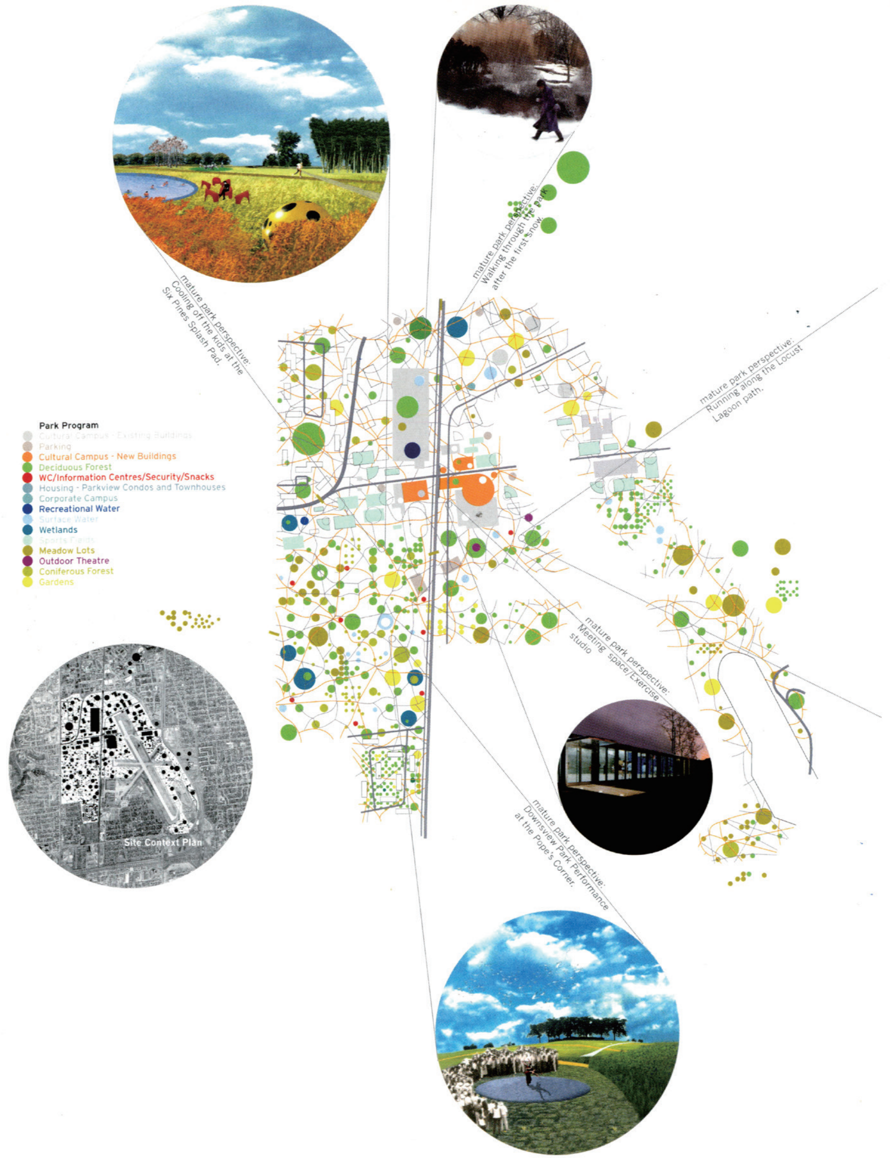
Although it took place sixteen years after the la Villette competition, the international design competition for Downsview Park had similar goals. The competition was held between 1999 and 2000, but the Canadian government had established a research center within the park site in 1995 in order to begin site investigation and operational management. As with la Villette, the design aspect of the competition was controversial, with Tree City, by OMA and Canadian industrial designer Bruce Mau as the winning entry (Fig. 4).

Downsview Park, originally home to an air base, covers an area of 130 square hectares. Initally located on the edge of Toronto, as the city grew, Downsview found itself at the center of new urban development (Fig. 5). As rapid urban growth created greater demands for land within the city, the uncertain future of Downsview — how the site would be connected and integrated with existing urban systems — became a key issue in the urban design of Toronto. The competition brief called for a new urban park that "must reckon with the demand for more intensive social and recreational uses coupled with impulses to regenerate and reintegrate with natural systems, often degraded by urbanization"… "the design should be intended to inaugurate and structure the transformation of the site while remaining open to change and growth over time."Finally, the new park should "respond to the social and natural histories of the site while developing its potential as a new landscape — one capable of supporting new ecologies and an evolving array of public uses and events, including ones of national distinction."[6] The emphasis on the site's operational strategies and site history provided a foundation for future development that considered the current built and natural condition, as well as ecological, human, economic and other urban aspects. The competition brief was innovative in its attempt to respect and response to the complexity and uncertainty of the site.

Koolhaas was sensitive to the cities heterogeneity. The proposal for Tree City recognizes the individuality of Toronto at three spatial levels: Toronto's regional competitiveness with other major North American cities, the protection of natural resources within greater Toronto, and integration of Downsview with its urban context. Tree City prioritized the natural features of Toronto, beginning the historically insight that as much as 90 percent of the city was once covered with trees. While Toronto has worked to both become a globally competitive

city and create locally used public spaces, maintaining urban public life in a low density context has been the most important environmental driver in Toronto. With Tree City, trees would become the catalyst for urbanization. Koolhaas used uncertainty of future urban spatial development as design precedent, presenting the concept for Tree City as a set of diagrams rather than as a finalized master plan. The concept builds a city park through "vegetal clusters, rather than new building complexes, [that] would provide the site's density with natural permeability, property development with perennial enrichment[6]."

Tree City is as simple as a collage. However, from the view of the park commissioners the simple approach to vegetation restoration and planting solved operational problems beyond shapes: it provided a general activity space for users while cultivating a land bank for future programs. Overall, this scheme enhanced land property values through flexibly and resilience within unpredictable urban development. The OMA/Koolhaas narrative was more convincing than other submissions because it considered future development a given, without prescribing the form it would take (Fig. 6). Tree City was once commented as "It is not to build a finalized space, but a system; it is open, flexible, gradual, and adjustable that



6 © OMA & Bruce Mau

6. 树城方案极大地契合了未来多伦多城镇化进程发展的不可预测性。在设计的已知条件并不充分的条件下，尤其是在解决不确定性问题时，设计模型式的图解表达更能抓住问题的核心。

6. Tree City is as simple as a collage. This scheme is flexibly and resilience within unpredictable urban development. The OMA/Koolhaas narrative was more convincing than other submissions because it considered future development a given, without prescribing the form it would take.

allows it can be adapted in similar places and time-space."

5 Conclusions

The proposals for Park de la Villette and Downsview Park, while they respond the complexity and uncertainty of urban development, are also mired in controversy due to their forward looking orientation and seemingly abstract conceptual expressions. In this paper we introduced the academic value of these two projects. In the context of China's contemporary development, we believed these schemes can point to both drawbacks and innovations for long-term park strategies. As current urbanization continues to cause intense changes resulting in the disruption and recombination of urban resource system, Chinese landscape architects increasingly recognize that both the Culture of Congestion and Indeterminacy put forth by Koolhaas are still timely descriptions for characterizing the contemporary city.

A Culture of Congestion shows an attitude of facing the reality. Actually it does not deny an architectural utopia, but it moves the focus to urban characteristics. However, the most difficult job for a scholar designer is to translate his concepts and thoughts into practices that is particularly evident in the scheme of the Park de la Villette. Koolhaas' proposal for the park responds to the difference in scale between city, park, and building by arguing that urban design should respond to the flows of the city and be much more similar to the city itself. The horizontal strips offer opportunities for future development, but in practice this may yield a spatial form that is inevitably out of control. Nonetheless, the design reflects strong analytical process and space-time considerations. In analyzing the driving agents of future development — political, economic, and social — Koolhaas is able to respond with variety and specificity.

Finally, the concept of Indeterminacy introduces the urban park as part of an urban resource system, and as such, it should play a role in allocating city resources. The social significance of parks and public spaces means that design and construction should respond to and be in harmony with the speed and mode of urban resource allocation. This requires landscape architects to anticipate future functions and services, and to understand the operational mechanics of natural resources, while designing poetic and beautiful spatial patterns. In the proposal for Tree City, for example, we can found the disciplinary constraints of architecture in shifting individual architectural scale towards urban park scale. The size of Downsview — at 130 square hectares — inevitably plays a key ecological role in the regional landscape. Koolhaas narrates his proposed designs with the diagrams and simple graphics, explaining that there should be no boundaries between analysis and creation. This creates an analysis-as-plan approach to design, which has made his proposals very controversial. However, regardless of whether it falls into the field of architecture or landscape architecture, Koolhaas has precisely predicted the changes that cities are experiencing, which gives legitimacy to his creative frameworks for the future. Yet, the uncomfortably accuracy that his design proposals engender speaks to his influence as an intellectual and creative leader in architecture and urban design. **LAF**

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